REMARKS

Claims 1, 4-5, 7, and 9-10 are pending and claims 2, 3, 6 and 8 are cancelled. Claims 1, 4-5 and 7-9 are rejected, 1 is objected to in the above-identified application.

Claims 1, 4-5, 7 and 9 also have been amended to correct antecedent basis issues and minor informalities, such as typographical, punctuation and/or grammatical errors.

No new matter has been added to the specification or claims of the present application.

Applicants request consideration and entry into the record of the following amendments and remarks.

Claim Objections

The Examiner has objected to claim 1 and has requested a chemical nomenclature correction to specific chemical compounds defined therein: i.e., from "butanedioic acid [3-methoxy-4-(phenylmethoxy)phenyl] and butanedioic acid [4-(phenylmethoxy)phenyl]" to instead recite "[3-methoxy-4-(phenylmethoxy)phenyl] butanedioic acid and [4-(phenylmethoxy)phenyl] butanedioic acid".

To advance prosecution, applicants now have amended claim 1 to incorporate the limitations of claims 2 (where X is CO_2H and R^2 is $CONH_2$) and 3 (where Q is phenyl) and have cancelled claims 2 and 3.

The following terms are now deleted from amended claim 1:

"Q is an optionally substituted 5- or 6- membered aryl or heteroaryl ring; X is COR^3; R^2 is CO_2H, CO_2R^7, SO_2R^7 or $SO_2NR^8R^9$, provided that R^2 is not CO_2R^7, when X is $CONH_2$;
provided that formula (I) compounds are not:
[3-(acetylamino)-4-cyclohexylphenyl]-butanedioic acid and 3-(acetylamino)-4-cyclohexylphenyl]-butanedioic acid diethyl ether;
butanedioic acid [3-methoxy-4-(phenylmethoxy)phenyl] ; or
butanedioic acid [4-(phenylmethoxy)phenyl] . . ".

In light of this, amended claim 1 effectively excludes all compounds of formula (I) not defined by terms where X = CO_2H, R^2 = $CONH_2$ and Q = phenyl, such as butanedioic acid compounds of the present invention.

In light of the above, applicants respectfully point out the above-identified rejection is rendered moot and request that above-identified objection be withdrawn.

Rejection Under 35 U.S.C. §112, 1st paragraph

Claim 7 is rejected under 35 U.S.C. §112, 1st para., "as the specification while enabling for the method of treatment of a human or animal suffering from an inflammatory disease or an autoimmune disorder comprising administering to said subject an effective amount of a compound of Formula I, as recited, does not reasonably provide enablement for method of treatment of a human or animal susceptible to an inflammatory disease or an autoimmune disorder".

In the interest of advancing prosecution, applicants have overcome the rejection by amending claim 7 to delete the term "or susceptible to".

Amended claim 7 now recites:

> "A method for treatment of a human or animal subject suffering from an inflammatory disease or an autoimmune disorder, which comprises administering to said subject an effective amount of a compound according to claim 1."

No new matter has been added to the claims of the present application.

In light of the above, applicants request that the above-identified rejection under 35 U.S.C. § 112, 1st paragraph, be withdrawn.

Rejection Under 35 U.S.C. §102 (b)

Claims 1, 4, 5, 7 and 9 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 6,380,239 to Muller ("U.S. '239 Pat.").

In particular, the Examiner states that U.S. '239 Pat. teaches 1,3-dioxoisoindolines substituted in the 4- or 5- position of the indoline ring as represented by compounds of Formula I defined therein.

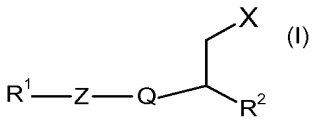
In particular, the Examiner states that the claimed invention is anticipated by U.S. '239 Pat., because of the following facts:

> "- when R^1 = optionally substituted $-C_{2-10}$alkylcycloalkyl, Z is a bond, Q = optionally substituted 5-membered heteroaryl, $R^2 = CONH_2$ and X = COR_3 where $R^3 = OR_6$ and R^6 =H and/or $R^3 = NR_8R_9$, where R_8 and R_9 are H;
> - by compound 1-(4-nitro-1,3-dioxoisoindolin-2-yl)propane-1,3-dicarboxylic acid; and
> - claims 5-8 of US '239 Pat. are directed to treatment methods for inflammatory bowel disease using and claim 9 recites a pharmaceutical composition containing the aforementioned compounds of formula I."

Applicants respectfully traverse the above-identified rejection.

The present invention generally relates to matrix metalloproteinase inhibitor compounds of formula (I) or physiologically functional derivatives thereof, corresponding pharmaceutical compositions and/or treatment methods.

Specifically, amended claim 1 of the present invention defines a compound of formula (I):

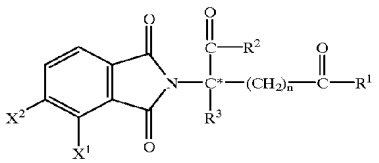
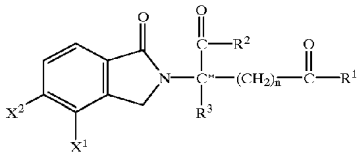

(I)

where:

" . . .Z is a bond, CH_2, O, S, SO, SO_2, NR^4, OCR^4R^5 or CR^4R^5O; or
Z, R^1 and Q together form an optionally substituted fused tricyclic group;
Q is unsubstituted phenyl;
X is COOH;
R^2 is $CONH_2$ . . .

The present invention is not directed to 1-oxo- and 1,3-dioxoisoindolines substituted in the 4- or 5-positions.

In contrast, U.S. '239 Pat. teaches 1-oxo- and 1,3-dioxoisoindolines substituted in the 4- or 5-positions of the indoline ring (as shown below) reduce levels of inflammatory cytokines, such as TNFα in a mammal:


or

.

Compounds of the U.S. '239 Pat. when defined in terms of Formula (I) of the present invention would include the definition of Z, R^1 and Q taken together to form an optionally substituted fused bicyclic heterocycle group, such as a 1-oxo- or 1,3-dioxoisoindoline.

However, the specification and claims of the present invention specifically define variables Z and Q as follows:

> "Z is a bond, CH_2, O, S, SO, SO_2, NR^4, OCR^4R^5 or CR^4R^5O; or Z, R^1 and Q together form an optionally substituted fused tricyclic group; Q is unsubstituted phenyl".

The variables Z, R^1 and Q of the present invention are not defined to be taken together or linked to form an optionally substituted fused bicyclic heterocycle group, such as a 1-oxo- or 1,3-dioxoisoindoline as defined by U.S. '239 Pat.

Based on the foregoing, applicants submit that U.S. '239 Pat. teaches a different compound series then that exemplified by the present invention.

Therefore, U.S. '239 Pat. neither discloses, nor anticipates the compounds of the present invention.

In light of the foregoing, applicants request that the above rejection under 35 U.S.C. § 102(b) be withdrawn.

Allowable Subject Matter

Claim 10 is objected to as being dependent upon a rejected base claim, but has been indicated as allowable if rewritten in independent form to include all limitations of the base and any intervening claims.

As the Examiner has noted that process claim 10 of the present invention is unobvious over the art and is allowable as the closest prior art reference U.S. Pat. Nos. 6,380,239 and 6,765,003 teach "different intermediates and steps in effectuating the resultant compounds".

In light of the above, applicants request that the above-identified objection be held in abeyance until the remarks and amendments of the present amendment are considered by the Examiner.

CONCLUSION

In view of the above remarks, reconsideration of this application is requested.

Applicants believe that the claims of the present application are in condition for allowance, which is earnestly solicited. Applicants respectfully request that a timely Notice of Allowance be issued in the present application.

If additional fees or charges are required, authorization is hereby granted to charge any necessary fees to Deposit Account No. 19-2570 accordingly.

Should the Examiner have any questions or wish to discuss any aspect of this case, the Examiner is encouraged to call the undersigned agent at the number below.

Respectfully submitted,

Grace C. Hsu
Attorney for Applicants
Registration No. 51,336

GLAXOSMITHKLINE
Corporate Intellectual Property - UW2220
P.O. Box 1539
King of Prussia, PA 19406-0939
Phone (610) 270-4650
Facsimile (610) 270-5090